

We claim:

1. A device for the direction of a living body comprising stimulation means placed in a formation conducive to providing stimulations perceptible to the brain as a discernable point, or points, or shapes, or any combination thereof whose positions may be perceived or learned to be perceived in some spatial frame of reference relatable to an actual environment with said stimulators being physically located on or proximate to parts of the body with adequate sensitivity to said stimulations; and

a behavior controller means operatively connected to stimulation means for directing stimulations; and

a power means for the provision of power where needed to the controller means, the elements connected to the controller means, or any combination thereof; whereby

behavior controller means may direct an action or a series of actions with instructions that may include directions whose intent will tend to be intuitively recognized or more easily learned by the mind due to graphically perceived points, patterns, or pointers, or visually oriented points, or selective or varied stimulations of a point or points which are or can be related in the mind to desired actions or spatial locations in the

current environment, or any combination of any of the above.

2. The device of claim 1 further comprising;

a communication means for communicating between the behavior controller and any external entity, or relaying communications between the behavior controller and any external entity.

3. The device of claim 2, wherein:

the communication means is effected by radio, or by a wire, or by video transmission, or by infra-red transmission, or any practical wireless means of data communication, or any combination thereof.

4. The device of claim 1, wherein:

the stimulation means is located in the mouth

5. The device of claim 4 further comprising:

a self-attaching housing for some or all of the components can easily be placed in and removed from the mouth being anchored to the shape of, or elements of the mouth, or any combination thereof.

6. The device of claim 1, wherein:

the location of a stimulation from stimulation means indicates a direction

7. The device of claim 1, wherein:

the location of a stimulation from stimulation means indicates the amount of change desired.

8. The device of claim 1, wherein:

the location of a stimulation from stimulation means indicates both a direction and the amount of change desired.

9. The device of claim 1, wherein:

a series of points indicated by stimulation means create the perception of a line, or arrow, or shape, or any combination thereof to indicate a direction

10. The device of claim 1, wherein:

a series of points indicated by stimulation means create the perception of a line, or arrow, or shape, or any combination thereof to indicate a distance

to be achieved.

11. The device of claim 1, wherein:

a series of points indicated by stimulation means create the perception of a line, or arrow, or shape, or any combination thereof to indicate both the direction and the amount of distance to be communicated.

12. The device of claim 1, wherein:

a series of points indicated by stimulation means create the perception of a line, or arrow, or shape, or any combination thereof with said points occurring over time to create a perceived motion; whereby

the direction can be emphasized by the moving pattern moving in that direction, or the distance to be communicated can be communicated by the length of the pattern, or the speed desired to be communicated can be communicated by the timing delays between the sequential stimulations, or any combination thereof.

13. The device of claim 1, wherein:

stimulation means or some subset of them are arrayed in a roughly circular or semi-circular area so that they may be related by the mind to direction;

whereby

a stimulation at a point in the roughly circular or semi-circular array corresponding to a direction in the current environment may be perceived as an indication of angle or degrees of change.

14. The device of claim 1 further comprising:

a first sensor means operatively connected to behavior controller means for sensing the direction, or attitudes, or speed, or any combination thereof, of the body; whereby

behavior controller means can monitor and automatically respond to any instruction not followed, or reward an instruction that was followed, or any combination thereof.

15. The device of claim 1 further comprising:

a second sensor means operatively connected to behavior controller means for sensing sounds, or vibrations, or any combination thereof; whereby

behavior controller means may monitor to sense potential problems or undesirable behavior and stimulate a corrective behavior to correct it.

16. The device of claim 15, wherein:

all or part of the assembly is in or adequately proximate to the mouth;

whereby

TMJ, or tooth grinding, or cheek biting, or snoring, or other detrimental oral activities, or any combination thereof, are prevented or minimized by corrective actions directed by controlling means.

17. The device of claim 1 further comprising:

a battery for provision of power.

18. The device of claim 1, wherein:

power, or additional power, or backup power, or any combination thereof for the behavior controller, or any elements of the assembly requiring power, or any combination thereof, are provided by a wire, or any wireless power transmission means, or any combination thereof.

19. The device of claim 1, wherein:

behavior controller means includes a fully functional computer processor.

20. The device of claim 1 further comprising:

GPS (Global Positioning System) means operatively connected to

behavior controller means; whereby

behavior controller means can manage the behavior of the body being directed with respect to a map, or a path, or a direction, or an area on the map, or any combination thereof by comparing the actual GPS position with a desired position and directing the body accordingly.

21. The device of claim 1 further comprising:

a remote control means located external to the behavior controller for allowing a person, or a machine, or any combination thereof, to monitor the status of the body and direct its actions by sending instructions to the behavior controller; and

data transmission means operatively connected to the behavior controller and remote control means for allowing communications between them; whereby

the remote control means, which can be a machine, or a computer, or a person, or a person aided by a computer, or a person aided by a machine, or any combination thereof, can monitor, or manage, or any combination

thereof, the behavior of the body being directed.

22. The device of claim 21 further comprising:

GPS means operatively connected through data transmission means to remote control means; whereby

the remote control means can manage the behavior of the body being directed with respect to a map, or a path, or a direction, or an area on the map, or any combination thereof by comparing the actual GPS position with a desired position and directing the body accordingly.

23. The device of claim 21 further comprising:

video image capture means operatively connected to remote control means through data transmission means for capturing the image from a perspective of the body; whereby

the remote control means can see and, if desirable, respond to still or motion video images to direct the body by sending stimulation instructions to the behavior controller.

24. The device of claim 21 further comprising:



a pointing means operatively connected to remote control means for selecting a desired direction or point; whereby

any graphical, or GPS map-based, or video-based image, or any combination thereof available to the remote control means can help a remote operator quickly identify a desired point or direction by pointing it out on the image with a mouse, or joystick, or any other point or area identifying device.

25. The device of claim 21 further comprising:

a steering means; whereby

a remote operator may steer the remote body with a steering wheel, joystick, keyboard, or any other device capable of left-right steering control and the remote control means can translate those actions to desired directions of change which will result in stimulations directing those changes.

26. The device of claim 25, wherein:

the remote operator's directing device additionally provides a third dimension of control; whereby

the directing device, which may be a joystick or any directing mechanism capable of three-dimensional control, can also direct a third dimension of direction.

27. The device of claim 21 further comprising:

speed control means; whereby

the remote operator, using any kind of accelerator, brake, joystick, or any other combination of user-interface control devices, can indicate an increase or decrease in the desired speed which is ultimately converted into stimulations delivered to the body.

28. The device of claim 1, wherein:

stimulation means has or includes a positive reinforcement component; whereby

pleasant vibrations, or cooling points on a hot body, or any stimulation that will be perceived as positive to the body are delivered to encourage a positive behavior.

29. The device of claim 28, wherein:

positive stimulations are made to erogenous zones.

30. A device for securing animal-directing or tracking equipment to birds

comprising:

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an assembly made up of a collar, tail-loop, back sheath, and leg assembly connected together around the body; and

a storage compartment secured by the assembly; whereby

the storage compartment is supported by this assembly to prevent load shifting and still leave the bird unencumbered enough to fly.

31. A device for the training of a living being comprising:

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stimulation means placed in a formation conducive to providing stimulations perceptible to the brain as a discernable point, or points, or shapes, or any combination thereof whose positions may be perceived or learned to be perceived in some spatial frame of reference relatable to an actual environment with said stimulators being physically located on or proximate to parts of the body with adequate sensitivity to said stimulations; and

computer means operatively connected to stimulation means for directing

stimulations; and

sensor means operatively connected to computer means for identifying degrees of success or failure in the following of instructive stimulations; and

power means for the provision of power where needed to the behavior controller means, the elements connected to the behavior controller means, or any combination thereof; whereby

computer means, whether attached to the body or separate from the stimulation assembly and thus directing stimulations remotely, can, automatically direct the body through potentially extensive and rigorous training sessions by stimulating direction commands as part of a computer-driven script or process which may include positive reinforcement for obedience, or negative reinforcement for disobedience or both.

32. The device of claim 31, wherein:

other external rewards, or punishments, or teaching aids, or any combination thereof are incorporated by the automated procedure to enhance the speed and depth of the learning experience; whereby

visual aids, video images to prompt a behavior, or auditory prompts, or dispensed reward treats, or other useful teaching aids that can be directed by a computer, or any combination thereof, allow more rapid and pleasant automated training.

33. A method for the direction of a living body wherein:

(a) stimulation means are placed in a formation on or proximate to a living body in a manner conducive to providing stimulations perceptible to the brain as instructions

(b) a remote person or computer or computer assisted person, or any combination thereof, direct actions to be performed

(c) these commands are communicated as necessary to the body-worn assembly which includes the stimulation means.

(d) these commands are converted and produced as stimulations delivered by stimulation means

34. The method of claim 33 wherein:

Communications from sensors adequately proximate to the body being directed provide the remote controlling entity feedback on the

performance, position, location, or environment of the body, or any combination thereof for improved direction.